

CLAIMS

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Sub. 1
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1. A method of partially plating a substrate for electronic devices, comprising arranging small balls at selected portions of a substrate for mounting semiconductor devices thereon, or a substrate for mounting electronic devices thereon and including a lead frame, and adhering or bonding the small balls thereto, and melting the small balls, thereby selectively plating the selected portions of the substrate for electronic devices with a different metal.

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Sub. 1
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2. The method of partially plating a substrate for electronic devices as claimed in claim 1, wherein the method comprises provisionally arranging and holding the small balls on an arrangement base plate having through holes provided at positions corresponding to the portions to be plated of the substrate for electronic devices, transferring the arrangement base plate above the substrate for mounting electronic devices, and adhering or bonding the small balls provisionally arranged at and held by the through holes to the portions to be plated, respectively.

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3. The method of partially plating a substrate for electronic devices as claimed in claim 2, wherein, in the provisionally arranging and holding procedure, excess small balls adhering to the arrangement base plate or the small balls which are provisionally held by the substrate are removed by applying vibrations to the arrangement base plate, thereby provisionally arranging and holding the small balls.

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4. The method of partially plating a substrate for electronic devices as claimed in claim 3, wherein the vibrations are ultrasonic vibrations.

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5. The method of partially plating a substrate for electronic devices as claimed in claim 1 or 2, wherein the small balls are selected from solder, Sn alloy or In alloy and the selected small balls are melted by reflowing to selectively plate the selected portions of the substrate

for electronic devices with a different metal.

a *sub. C3*
5 6. The method of partially plating a substrate for electronic devices as claimed in claim 1 ~~or 2~~, wherein the small balls are selected from Au, Ag, Pd, Pt, Ni or Cr, and the balls are melted by partial heating.

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10 7. The method of partially plating a substrate for electronic devices as claimed in claim 1 ~~or 2~~, wherein the substrate for electronic devices is an insulating resin substrate or a polyimide tape, and the selected portions are wiring composed of copper.

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15 8. The method of partially plating a substrate for electronic devices as claimed in claim 1 ~~or 2~~, wherein the substrate for electronic devices is made of a ceramic material, and the selected portions are wiring composed of copper.

20 9. The method of partially plating a substrate for electronic devices as claimed in claim 1 ~~or 2~~, wherein the substrate for electronic devices is a lead frame composed of copper or iron alloy, and the leads of the lead frame are partially plated.

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